IN THE DRAWINGS:

In **Figure 3**: "214" is replaced with "314" (see [0176])

A red-line drawing sheet is enclosed herewith.

A new (replacement) sheet is enclosed herewith.

REMARKS

Status

In the Office action dated 11/17/2004, the Examiner made an Examiner's amendment to correct the claim numbering, as follows:

> It is noted that claims 74-76 on page 144 have the same numbers as claims 74-76 on page 142. Apparently these claims were intended be Applicant to depend upon the method claim 80 and not the content transcoder claim 73. Therefore, the Examiner has re-numbered the claims as number 81-83 with claims 81 and 83 depending on independent claim 80 according to Rule 1.126.

Also, Claims 1-83 were subject to restriction and/or election requirement, as follows:

I. Claims 1-45 and 69-70
II. Claims 46-56
III. Claims 57 and 73-79
IV. Claims 58-66 and 80-83
V. Claims 67-68
VI. Claims 71-72

Applicant elected the invention of Group I for further prosecution.

The Group 1 invention

The Group I invention is generally disclosed in the specification at :

- paragraphs [0001] - [0018], [0050 – 0064], [0166-0280]; and
- in Figures 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 49, 50, 51, 52, 53, 57, 58, 59

Inventorship

Applicant has corrected the inventorship. The application, as filed, had 13 named inventors. During subsequent inquiry, ancillary to preparing to respond to the restriction requirement, a determination was made that 5 of the 13 persons were incorrectly named as inventors. Appropriate papers were recently submitted (faxed Nov. 28, 2005) to delete the 5 inventors.

The 5 persons **deleted** as inventors from the application are:

Jung Rim KIM	**deleted**, was incorrectly named as an inventor
Sangwook LEE	**deleted**, was incorrectly named as an inventor
Jeongtaek OH	**deleted**, was incorrectly named as an inventor
S. Moon-Ho SONG	**deleted**, was incorrectly named as an inventor
Yunam KIM	**deleted**, was incorrectly named as an inventor

Further, as a result of the **election**, 3 more inventors needed to be deleted from this application, and appropriate papers were submitted (faxed 11/28/05) to delete the 3 inventors, as follows:

Keansub LEE	**deleted** as a result of making Group 1 election
Seong Soo CHUN	**deleted** as a result of making Group 1 election
Sangwook OH	**deleted** as a result of making Group 1 election

Therefore, the following 5 inventors **remain** as named inventors on this application:

Sanghoon SULL	**remains** after making Group 1 election
Hyeokman KIM	**remains** after making Group 1 election
Min Gyo CHUNG	**remains** after making Group 1 election
Ja-Cheon YOON	**remains** after making Group 1 election
Hyungseok CHOI	**remains** after making Group 1 election

Information Disclosures and References Cited

As evidenced by attachments to the Office action, the following four (4) IDCs (Information Disclosure Statements/Citations) were submitted and considered by the Examiner:

P0 id0 filed by Baker 7/26/2002 **2** US patents. **1** Korea Patent. **10** articles

US 6,064,380
US 6,278,446
KR 10-0313713-B1
"Visual rhythm and shot verification"
"An efficient graphical shot verifier incorporating visual rhythm"
"Processing of partial video data for detection of wipes"
"Fixed queries array: a fast and economical data structure for proximity searching"
"Fast search algorithms for vector quantization of images using multiple triangle ... "
"Relevance graph-based image retrieval"
"Graph-Theoretic Clustering for Image Grouping and Retrieval"
"Structure-Based similarity Search with Graph Histograms"
"Update Relevant Image Weights for Content-Based Image Retrieval Using Support ... "
"Perception-based image transcoding for universal multimedia access"

P0 id1 filed by GEL 12/ /2002 **3** EP patents, **3** articles (from PCT search report)

EP 0 782 085 A1
EP 0 944 009 A2
EP 0 833 258 A2
XP 000110079, IBM TDB, Vol 33, No 10A, March 1991, pages 344-345
XP 000772256, IBM TDB, Vol 41, No 1, Jan 1998, page 687
XP 002944115, Network Working Group, RFC 2396, August 1998, pages 13-14

P0 id2 filed by GEL 4/18/2003 **2** US patents and **1** article

US 6,449,392
US 6,549,245
"A Fast Search Algorithm For Vector Quantization Using Wavelet Transform"

P0 id3 filed by GEL 10/27/2004 **2** US patents (from PCT IPER)

US 5,884,056
US 6,219,679

The following references are cited by the Examiner in the July 2005 Office action

US 6,868,225
US 6,567,980

US 6,757,273
US 5,973,679
US 6,654,933
US 6,616,700
US 6,195,458
US 5,969,716
US 6,363,380
US 6,693,959
US 6,075,576
US 6,859,838

Amendment(s) to the Specification

Various amendments to the specification are made herewith to correct typographical errors and the like, as follows. Support is set forth for each change (in parentheses). No new matter is entered by the changes.

In the paragraph starting at page 17, line 4, at paragraph [0052, line 5]:

"multimedia ~~information~~ content on any device capable of connecting" (see [0051]).

In the paragraph starting at page 17, line 4, at paragraph [0052, line 7]:

"mentioned functions. The ~~video~~ multimedia content can be one or more" (see [0051]).

In the paragraph starting at page 34 line 22, at paragraph [0176, line 3-5]
"314 (that correlates to element 214 of FIG. 2) that is stored in the multimedia bookmark ~~310 (that correlates to element 310 of FIG.2)~~ 210 of FIG. 2 of the present invention ..." (see FIG. 2 and FIG. 3) (310 in FIG. 3 is a multimedia database, not the multimedia bookmark).

In the paragraph starting at page 37 line 10, at paragraph [0183, line 4]

"to be called a ~~bookinarked~~ bookmarked file. Then, the multimedia book-" (typo).

In the paragraph starting at page 49 line 15, at paragraph [0227, line 2]

"tated text. If so, go to step [[5]] 4. Otherwise, provide the" (evident if all steps will be executed).

In the paragraph starting at page 49 line 28, at paragraph [0233, line 3]

"[[5]] 4. Otherwise, provide the user with the result of the" (evident if all steps will be executed).

In the paragraph starting at page 51 line 33, at paragraph [0262, line 7]

"bookmark (5) might be obtained at a client side if a user types in" (see next if-clause, that is, "if a user type in his own title").

In the paragraph starting at page 53 line 2, at paragraph [0266, line 24]

"document which includes both the [[6]]captured content" (delete typo).

In the paragraph starting at page 56 line 20, at paragraph [0280, line 29]

"~~virtual~~ video server 2104, using the server IP address designated in" (see [0270, line 3] and [0280, lines 30-31]).

Amendment(s) to the Drawing(s)

In **Figure 3**: "214" is replaced with "314" (see [0176])

Overview of the Office Action

Claims 1-45, 69 and 70 are pending, and are all rejected over the following references:

6,868,225 - Brown
6,567,980 - Jain
6,064,380 - Swenson
6,757,273 - Hsu

Claims 1-8, 10-14, 30-38, and 40-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al. (hereinafter "Brown"), US 6,868,225 B1 provisional application filed 3/30/1999.

Claims 15-29 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (hereinafter "Brown"), US 6,868,225 B1 provisional application filed 3/30/1999 in view of Jain et al. (hereinafter "Jain"), US 6,567,980 B1 provisional filed 8/14/1997.

Claims 9 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. (hereinafter "Brown"), US 6,868,225 B1 provisional application filed 3/30/1999 in view of Swenson et al. (hereinafter "Swenson"), US 6,064,380 filed 11/17/1997.

Claims 69 and 70 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al. ,hereinafter "Brown"), US 6,86S,225 B1 provisional application filed 3/30/1999 in view of Hsu et al. (hereinafter "Hsu"), US 6,757,273 B1 filed 2/7/2000.

The References Cited, Generally

6,868,225 (Brown) discloses multimedia program bookmarking system. A multimedia program bookmarking system provides a bookmark function that allows the user to bookmark a program where he left off. The invention records the frame of the program where the user stopped when the user commands the system to do so. Alternatively, the invention automatically bookmarks the program for the user if the user exits viewing the program. The invention displays an indicator indicating that a bookmark has been saved and the user can, at any time, access his bookmark and continue playback of the program from where he left off. Bookmarks within a single program can be set for different users. Remote controls are encoded for a specific user in a household, allowing each person in the household to have a personal remote control and therefore, personal bookmarks. The invention notes that a set of bookmarks belongs to a certain encoded remote control. The user can alternatively select a specific set of bookmarks manually, through a menu. The system loads the associated bookmark information for the user and any bookmarks that do not have associated programs stored on the storage device are ignored and deleted, otherwise programs are played backed starting from the associated bookmarks, if they exist. Multiple bookmarks for a program are transparent to the user because the remote control that the user uses tells the system to only display and activate that particular user's bookmarks.

6,567,980 (Jain) discloses video cataloger system with hyperlinked output. One aspect is directed to a system and method for video cataloging. The video is cataloged according to predefined or user definable metadata. The metadata is used to index and then retrieve encoded video. In another aspect of the invention, video metadata track processors convert metadata tracks of the video information to produce displayable frames containing hyperlinking between displayable data. Another aspect is directed to a method of browsing stored video information, including displaying hyperlinked frames of metadata track representations, and selecting and displaying links between displayable frames.

6,064,380 (Swenson) discloses bookmark for multi-media content. A method and implementing network computer system is provided in which completion point file positions of multimedia file presentations may be saved in persistent memory devices when a user desires to terminate a multimedia file being presented on a display device. In subsequent network and multimedia file accesses, a user is selectively able to begin play at the previously saved completion point in the multimedia file presentation, i.e. the file position at which the user had previously terminated play. The saved position in one example may include a refresh rewind of a predetermined length from the saved position to refresh a user with the content of the multimedia file being continued. In an exemplary embodiment, a user is also presented with a selection device by which the user may create a title for one or more saved files and corresponding completion points within each saved file. A default file designation may be automatically entered by the program. A plurality of partially presented multimedia files may be saved and listed for subsequent continuation from the point of previous termination.

6,757,273 (Hsu) discloses apparatus, and associated method, for communicating streaming video in a radio communication system. Apparatus, and an associated method, for facilitating bandwidth smoothing to effectuate a communication service including the communication of streaming video or other multimedia data component in a radio communication system, such as a cellular communication system. A mobile station includes a buffer at which to buffer the streaming multimedia data component when received at the mobile station. An indication of the size of the buffer is utilized in the selection of the bandwidth smoothing.

The Invention, Generally

A method and system are provided for tagging, indexing, searching, retrieving, manipulating, and editing video images on a wide area network such as the Internet. A first set of methods is provided for enabling users to add bookmarks to multimedia files, such as movies, and audio files, such as music. The multimedia bookmark facilitates the searching of portions or segments of multimedia files, particularly when used in conjunction with a search engine. Additional methods are provided that reformat a video image for use on a variety of devices that have a wide range of resolutions by selecting some material (in the case of smaller resolutions) or more material (in the case of larger resolutions) from the same multimedia file. Still more methods are provided for interrogating images that contain textual information (in graphical form) so that the text may be copied to a tag or bookmark that can itself be indexed and searched to facilitate later retrieval via a search engine. (see Abstract)

The Group I invention is also disclosed in the specification at:

- paragraphs [0001] - [0018], [0050 – 0064], [0166-0280]; and
- in Figures 1, 2, 3, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 49, 50, 51, 52, 53, 57, 58, 59

Preliminary Matters
"Preliminary" Amendments to the Claims

Various amendments to the claims are made herewith. Support is set forth for each change (in parentheses). No new matter is entered by the changes.

In **Claims 4, 5, 6, 7, 34, 35, 36, 37**, "multimedia content" is replaced with "content information" (see [0051] and [0172]-[0175] with FIG. 2)

In **Claims 12, 14, 42, 44**, "multimedia file" is replaced with "multimedia bookmark" (see [0172], [0252]-[0260] and [0263])

In **Claims 14, 44**, "device" is replaced with "server" (see [0263]).

In **Claims 34-45**, "system" is replaced with "method" (see claim 33)

In **Claims 2-3, 17-18, 31-32**, the description of "search mechanism and method" is modified (see [0060], [0173, lines 6-8], [0176], [0177], and [0214-0250]). The description of "access mechanism and method" is modified (see [0060], [0176], and [0222]).

In **Claim 16**, "a segment of the file" is replaced with "a segment of the variation file" (see [0181]).

In **Claim 19**, "the at least two variations" is replaced with "at least two variation files" (one typo – deleting "the", and more specific phrase - "variation files").

In **Claim 24**, the definition of an "offset" is modified (see [0182] and [0198]).

Claim 26 is modified (see [0198]-[0199]).

In **Claim 29**, the parent claim of Claim 29 changed from Claim 28 into Claim 16 (see [0208] with FIG.10, [0251] with FIG.16).

In **Claim 33**,

- "playing the multimedia content ~~downloaded~~ delivered from the server by a user;" (see [0008]).
- "saving content information pertaining to a segment of the multimedia content designated by the user as a multimedia bookmark of the multimedia content;" (see [0209]-[0210] with FIG. 11).
- "displaying ~~a bookmarked position of the multimedia content~~ the content information of the multimedia bookmark;" (see [0205, lines 13-19] and [0208, lines 13-15] with FIG. 10).
- "searching for ~~a multimedia file~~ segments of multimedia contents satisfying search criteria of the content information;" (see [0176], [0177] with FIG. 3, and [0214-0250]).

In **Claim 69**,

- three instances of "video bookmark message service center" are replaced with "multimedia bookmark message service center" (see [0271] and [0280] with FIG. 21)
- two instances of "new" are replaced with "modified" (see [0280])

Newly-Presented Claims

Claim 84 is comparable to claim 29, but depends from claim 1 (rather than from claim 16).

Claim 85 (see [0208] with FIG.10, [0251] with FIG.16)

Claim 86 (see [0209]-[0210] with FIG. 11)

Claim 87 (see [0172] with FIG.2)

Claim 88 (see [0280])

Claim Count (and fees)

Many claims have been canceled (as a result of the restriction requirement).

Relatively few claims are added by this Amendment.

No excess claim fee is due.

Traversing the Rejection

Overall Comments

Literally speaking, bookmark function for multimedia or audio-visual content allows a user to mark points of interest within the content, and access the content from the points whenever he wants to access the points again. Thus, bookmarked information of a bookmark comprises at least "positional information" that is used for accessing a multimedia content starting from a bookmarked position.

Bookmarked information in "Brown" (US 6,868,225 filed 3/30/1999) comprises "positional information" such as an offset, event type, and time stamp (see col. 5 line 55). In a user interface, Brown displays an indicator visually indicating to a user that a bookmark has been saved for a program when the bookmarked program is displayed in a listing along with the names of other programs (see col. 1 line 64-67). Additionally, when playing the program, bookmark indicators are displayed over a trick play bar. These marks appears as, for example, a vertical bar that is colored, flagged, or labeled uniquely giving the user visual cues that an index or bookmark exists in that position (see col. 20 line 8-12).

In the present invention (hereinafter referred to as "Sull"), bookmarked information of a multimedia bookmark for a multimedia content comprises "positional information" and "content information" (see Figure 2, [0172]). Positional information comprises URI and a bookmarked position that is a time or byte position within the content. Sull allows either positional information or content information to be used for accessing the multimedia content starting from the bookmarked position.

One of the most distinguishing features of Sull's multimedia bookmark is the content information (see FIG. 2, FIG. 3, [0173]-[0175]). The content information comprises "audio-visual features" and "textual features". The audio-visual features are the information obtained by capturing or sampling the multimedia content at the bookmarked position. For example,

- For video bookmark: thumbnail image of a video frame captured at or near the bookmarked position and/or visual feature vectors like color histogram for one or more of the frames captured at or near the bookmarked position;
- For audio bookmark: sampled audio signal (typically of short duration at or near the bookmarked position) and its visualized image; and
- For text bookmark: sampled text string present at the bookmarked position.

The textual features are text information specified by the user(s), as well as delivered with the content. Other aspects of the textual features may be obtained by accessing metadata of the multimedia content. For example,

- A title of a multimedia bookmark specified by a user as well as delivered with the content; and
- Annotated text of a video/audio/text segment corresponding to the bookmarked position, which might be stored as the metadata of the multimedia content.

The content information is used for visually displaying multimedia bookmarks in a bookmark list, as well as for searching one or more multimedia content databases for multimedia contents that match the content information.

- Visually displaying bookmarks with their content information in a bookmark list: See FIG. 9, [0205]-[0207]
- Searching one or more multimedia content databases for multimedia contents that match the content information: See FIG. 3, FIG. 4, and [0176]-[0179]. One of the benefits for searching is to access the multimedia content starting from the bookmarked position in cases where a bookmark system that utilizes only positional information is not valid. See [0176, lines 1-21].

Sull's bookmark is really an audiovisual "multimedia" bookmark because its subjects are multimedia contents (video, audio and even text), and its bookmarked information comprises the content information (thumbnail image of a video frame or visualized image of sampled audio signal and the like) that is also multimedia. Thus, Sull's multimedia bookmarks are "visual bookmarks" when they are listed using their content information, not just bookmarked positions.

Another distinguished feature of Sull's multimedia bookmark is bookmark function for variations of a multimedia content, which is called as "durable multimedia bookmark" in Sull (see [0009]–[0012], [0169], [0180]-[0203] and [0204]-[0211]). In many video and audio archiving systems, there are several differently compressed files called "variations" that could be produced from a single source multimedia content. Each variation file of a multimedia content may start and end at different time points from the viewpoint of the source multimedia content, since the variations may be produced by an independent encoding process varying the values chosen for encoding formats, bandwidths, resolutions, etc. This results in mismatches of time points because a specific time point of the source multimedia content may be presented as different media time points in its variation files.

When a multimedia bookmark is utilized for a multimedia content having variations, the mismatch of positions causes a problem of mis-positioned playback. Consider a simple case where one makes a multimedia bookmark on a variation file of a source multimedia content (for example, video encoded in a given format), and tries to play another variation of the multimedia content (for example, video encoded in a different format) from a bookmarked position of the multimedia bookmark. If the two variations do not start at the same position of the source content, the playback will not start at a desired position. That is, the playback will start at the position that is temporally shifted with a difference between the start positions of the two variations. Sull teaches how to adjust the bookmarked position using the difference and time scale.

Traversing the Rejections, claim-by-claim

1. Claims 1-8, 10-14, 30-38, 40-44 according to "Brown" (US 6,868,225 B1)

Regarding independent claim 1 - System

- Brown's multimedia bookmark does not have the content information (see abstract and col. 1 line 52 - col. 2 line 21). The sentences "The invention records the frame of the

program ..." (see abstract and col. 1 line 60) and "The CPU records the frame of the program ..." (see col. 15 line 32) in Brown could mislead that Brown also teaches the use of content information. However, "records the frame of the program" should be understood that it implicitly means "records the position of the frame of the program" according to the following reasons:

- ✓ First, the bookmarks in Brown are placed within a program either to mark "points of interests" (by explicit requests of a user) or "exit points" (automatically done when a user exits viewing the program) (see col. 15 lines 35-44).
- ✓ Second, the media switch which is a core component in Brown mediates between CPU, hard disk, and memory while inputting and outputting MPEG streams from input modules and to output modules, respectively (see col. 4 lines 28-35, FIG. 1 and FIG. 2). The unique aspect of the media switch is the ability to handle high data rates effectively and inexpensively. It performs the functions of taking video and audio data in, sending video and audio data out, sending video and audio data to disk, and extracting video and audio data from the disk on a low cost platform (see col. 6 lines 48-57 and col. 6 lines 26-30). However, the event 501 of FIG.5 in the event buffer 413 of FIG.4 has only three fields (address offset 502 indicating the location in the video/audio/private data buffer, event type 503, and time stamp 504) without any field related to content information (such as a frame image, audio signal, text string) that is extracted from video/audio/private data source (see col. 5 lines 53-65 and FIG.4 and FIG.5). The logical segment 604 of FIG.6 generated from the event 501 by the program logic has no such field related to content information (see col.5 line 66 - col.6 line 14). Moreover, the media switch 701 in FIG.7 does not contain MPEG decoder by which an audio-visual data such as a frame image or audio signal can be constructed. The media switch 710 has just a parser 705 to parse frame information such as frame type (I, P, B frame) and a DMA 709 to access and control events (see col. 6 line 58 - col. 8 line 11, and FIG.7). It means that the media stitch has no ability to extract a frame and/or audio signal from MEPG streams and save them to disk.
- ✓ Third, the user interfaces in Brown do not utilize the content information such as a frame captured at a bookmarked position. For example, in Brown, an indicator is placed on a screen when a bookmark has been saved (see col. 15 lines 42-44 and FIG.18). Also, the bookmark indication means only show that a bookmark exists for a program when the program is displayed in a listing along with the names of other programs and their associated status indicator (see col. 24 lines 15-20). Also, when a program having bookmarks is played back, the "index or bookmark indicators" over the trick play bar only give a user visual clues that a bookmark exists in that position (see col.19 line 48 - col. 20 line 15, FIG.27).
- ✓ Fourth, Brown clearly describes in his claims that Brown's process and apparatus detect and save only the point - exit point or explicit mark - as a bookmark (see col. 24 lines 8-12, col. 25 lines 2-6) without content information.

Thus, it is clear that Brown does not teach the storing and utilization of the content information for multimedia bookmark.

- Sull's multimedia bookmark has the content information. (See [0051], [0172]-[0175] with FIG. 2)

Regarding dependent claim 2

- Brown's binary search mechanism in col. 5 lines 10-19 is a method for finding a specific segment having a desired location (bookmarked position in Sull's terminology) when a stream (a video program) is stored as a sequence of fixed-size segments.
- Sull's search mechanism in [0060], [0176]-[0179] with FIG. 3 and FIG.4, [0208] with FIG.10, [0214]-[0250] with FIG. 15 is a method to search for relevant multimedia contents based on at least one feature saved in a multimedia bookmark (more specifically, saved as the content information of a multimedia bookmark).
- These two search mechanisms are totally different though their titles are the same accidentally.
- Description of "search mechanism and method" is modified according to [0060], [0173, lines 6-8], [0176], [0177], and [0214-0250].

Regarding dependent claim 3

- Brown's access mechanism in col. 1 line 52-col. 2 line 21 and col. 15 lines 45-54 is just a description for playing, deleting, jumping and creating a bookmark.
- In Sull, "access mechanism" is replaced with new requesting mechanism according to [0060] and [0176], and [0222].

Regarding dependent claim 4

- Brown's multimedia content in abstract and col. 1 line 52-col. 2 line 21.
- In Sull, "multimedia content" is replaced with "content information" according to [0051] and [0172]-[0175] with FIG. 2.

Regarding dependent claim 5

- Brown's multimedia content in FIG. 4, col. 1 line 52-col. 2 line 21, and col. 5 lines 20-52.
- In Sull, "multimedia content" is replaced with "content information" according to [0051] and [0172]-[0175] with FIG. 2.

Regarding dependent claim 6

- Brown's multimedia content in FIG. 4, col. 1 line 52-col. 2 line 21, and col.5 lines 20-52 is an incoming MPEG stream where video, audio, private data and MPEG events are interleaved.
- In Sull, multimedia content in [0052] and [0175, lines 1-11] is audio data that is subject to place audio bookmarks (one form of multimedia bookmark).

Regarding dependent claim 7

- Brown's multimedia content in FIG. 4, col. 1 line 52-col. 2 line 21, and col. 5 lines 20-52 is an incoming MPEG stream where video, audio, private data and MPEG events are interleaved.
- In Sull, multimedia content in [0052] and [0175, lines 11-19] is a string of characters that is subject to place text bookmarks (one form of multimedia bookmark).

Regarding dependent claim 8

- Brown's positional information in FIG. 5, col. 1 line 52-col. 2 line 21, and col. 5 lines 53-65 comprises an offset, event type, and time stamp. The offset is utilized for finding a

desired location in a memory buffer, and the time stamp for linearly parsing a MPEG stream. According to the positional information, MPEG data is not copied from one location in memory to another, which results in a more cost effective design (see col. 6 lines 26-30). This mechanism is useful for accessing a desired location while recording MPEG stream in a memory buffer. Note that the positional information does not have URI or the like for accessing a MPEG stream stored in local storage.

- In Sull, positional information in [0054] and [0172]-[0173] comprises URI of a multimedia content (or the like) and a bookmarked position within the content.

Regarding dependent claim 10

- Brown's positional information in FIG. 5, col. 1 line 52-col. 2 line 21, and col. 5 lines 53-65 comprises an offset, event type, and time stamp. The offset indicates a location in a memory buffer, and the time stamp is just a counter value that is monotonically increasing and starts at zero each time the system boots up (see col. 5 lines 1-4).
- In Sull, positional information in [0054] and [0174]-[0175] includes an elapsed time.

Regarding dependent claim 11

- Brown's positional information in FIG. 5, col. 1 line 52-col. 2 line 21, and col. 5 lines 53-65 comprises an offset, event type, and time stamp. The offset indicates a location in a memory buffer, and the time stamp is just a counter value that is monotonically increasing and starts at zero each time the system boots up (see col. 5 lines 1-4).
- In Sull, positional information in [0054] and [0174]-[0175] includes a time code.

Regarding dependent claim 12

- Brown's multimedia file contained on a local storage in FIG. 1 and col. 4 lines 28-35.
- In Sull, "multimedia file" is replaced with "multimedia bookmark" according to [0055], [0172], [0252]-[0260] and [0263].

Regarding dependent claim 13

- Brown's local storage including a database in FIG. 1 and col. 4 lines 28-35.
- In Sull, local storage including a database in [0055], [0161, line 24], [0162].

Regarding dependent claim 14

- Brown's multimedia file stored on a device accessible via a network in FIG. 1 and col. 4 lines 28-35.
- In Sull, "multimedia file" is replaced with "multimedia bookmark" according to [0055], [0172], [0252]-[0260] and [0263]. In this claim, Sull teaches that multimedia bookmark made by a client can be stored on a server via a network.

Regarding independent claim 30 - Method

- Referring to independent claim 1.

Regarding dependent claim 31

- Referring to dependent claim 2.

Regarding dependent claim 32

- Referring to dependent claim 3.

Regarding independent claim 33 – Method

- Modifications
  - "playing the multimedia content ~~downloaded~~ delivered from the server by a user;" according to [0008].
  - "saving content information pertaining to a segment of the multimedia content designated by the user as a multimedia bookmark of the multimedia content;" according to [0209]-[0210] with FIG.11.
  - "displaying a ~~bookmarked position of the multimedia content~~ the content information of the multimedia bookmark;" according to [0205, lines 13-19] and [0208, lines 13-15] with FIG.10.
  - "searching for ~~a multimedia file~~ segments of multimedia contents satisfying search criteria of the content information;" according to [0176]-[0179] with FIG. 3 and FIG. 4.

Regarding dependent claim 34

- Referring to dependent claim 4.

Regarding dependent claim 35

- Referring to dependent claim 5.

Regarding dependent claim 36

- Referring to dependent claim 6.

Regarding dependent claim 37

- Referring to dependent claim 7.

Regarding dependent claim 38

- Referring to dependent claim 8.

Regarding dependent claim 40

- Referring to dependent claim 10.

Regarding dependent claim 41

- Referring to dependent claim 11.

Regarding dependent claim 42

- Referring to dependent claim 12.

Regarding dependent claim 43

- Referring to dependent claim 13.

Regarding dependent claim 44

- Referring to dependent claim 14.

2. Claims 15-29, 45 according to "Brown" (US 6,868,225 B1) and "Jain" (US 6,567,980 B1)

Regarding dependent claim 15

- Brown's teaching that bookmark system in a computer environment in col. 3 lines 49-50, and multimedia content may be MPEG format in col. 3 line 64 – col. 4 line 27 does not relate to the teaching of Sull.
- Jain's teaching that the network is the Internet in col. 2 lines 9-16 and col. 1 line 36 – col. 2 line 39 does not relate to the teaching of Sull.
- Referring to dependent claim 14.

Regarding independent claim 16 – System

- Brown's teaching in the abstract, col. 1 line 52-col. 2 line 21 and col.15 lines 30-63 regarding "a segment of a file having a beginning point after the beginning point of a master file" is not related with the variations files defined in Sull. The variation files defined in Sull are not "partial streams or segments of the master file". The variation files are the files derived from a master file, for example, files that are produced by independently encoding or compressing a single source multimedia content varying the values chosen for encoding formats, bandwidths, resolutions, etc (see [0011], [0012] in Sull). As shown in FIG.5 of Sull, each variation file of a source multimedia content in Sull may start and end at different time points with respect to the source multimedia content. Thus, the content of a master file might not include the whole content of its slave files (see [0181] and [0182] in Sull). For example, in FIG.5 of Sull, the five variation files 504, 506, 508, 510, 512 are encoded from the same source multimedia content 502. The file 504 is chosen as a master file, and the other four files then become its slave files. However, the master file 504 does not include the parts of the source multimedia content 502 that its slave files contain except the slave file 506 (The master file 504 and the slave file 506 correspond to the same part of the source multimedia content 502). Moreover, there is even a case such that the content of the master file 504 is a part of the content of its slave file 512. That is, the content saved in a variation file 512 include that of its master file 504, which would be impossible if the variation file in the ***present invention*** is a "partial streams or segments of the master file". Thus, it is clear that Brown does not teach "a segment of a file having a beginning point after the beginning point of a master file".
- Brown's teaching in col. 17 lines 42-60 that "a user may select a beginning and end point of a show (partial stream) extracted from a channel stream to save into a show variation file" is not related with the variations files defined in Sull. Though a user may select a beginning and end point of a show extracted from a channel stream in Brown, Brown only teaches how to access the same point in a single partial stream recorded at a PVR. Thus, it is clear that Brown does not teach how to access the same point or segment in multiple variation files generated from a single multimedia content, which is taught in Sull ([0180] – [0196] in Sull).
- Jain's teaching in col. 1 line 54 – col.2 line 39, col.4 lines 21-40, col. 6 lines 43 – col. 7 line 13, and col. 14 lines 1-6 that "a user can designate a segment of a file having an end point before the end point of a master file" is not related with the teaching of Sull, that is, how to access the same segment in multiple variation files. Jain only teaches that a user

can designate or mark a "clip" for a video source being encoded into a file, and calls the beginning and end points of the marked clip (not the variation file as indicated by reviewer) the in-time and out-time codes of the clip (see col.4 lines 31-34, and FIG.2). Clips are defined to allow a user to annotate them (see col. 8 lines 60-61), thus resulting in the clip track metadata (see col. 6 line 61 - col. 7 line 13). Thus, the "clip" should be understood as a segment of an encoded file.

Regarding dependent claim 17

- Referring to dependent claim 2.

Regarding dependent claim 18

- Referring to dependent claim 3.

Regarding dependent claim 19

- Brown's teaching in col. 15 lines 30-63 is not related with the variations files defined in Sull.
- In this claim, Sull teaches that two variations are accessible from a network in [0262].

Regarding dependent claim 20

- Referring to dependent claim 15.

Regarding dependent claim 21

- Brown's teaching in col.1 line 52 – col.2 line 21 and col. 15 lines 30-63 is not related to the teaching of Sull.
- In this claim, Sull teaches that multimedia bookmark is accessible from the network in [0055], [0172], [0252]-[0260] and [0263].

Regarding dependent claim 22

- Brown's teaching in col. 1 line 52- col. 2 line 21 and col. 15 lines 30-63 is not related to the teaching of Sull.
- In this claim, Sull teaches that the multimedia bookmark can be stored in a database in [0055], [0161, line 24], [0162].

Regarding dependent claim 23

- Brown's teaching in col. 1 line 52- col. 2 line 21 and col. 15 lines 30-63 is not related to the teaching of Sull.
- In this claim, Sull teaches that the multimedia bookmark is indexed in a search engine in [0162], [0170] and [0214].

Regarding dependent claim 24

- Jain's teaching in the col. 1 line 54 – col.2 line 39, and col. 12 line 60 – col. 13 line 33 is not related to the "variation file" and "offset" defined in Sull.
- The definition of an "offset" is modified according to [0182] and [0198].

Regarding dependent claim 25

- Jain's teaching in the col. 4 lines 21–40, col. 6 line 43 – col. 7 line 13, and col. 14 lines 1-6 is not related with the "variation file" and "offset" defined in Sull.
- In this claim, Sull teaches that the offset information of a variation file is calculated by aligning a referential segment between two different time points from the master file and the same referential segment of the variation file in [0198].

Regarding dependent claim 26

- Brown's teaching in FIG.4, col. 1 line 52- col. 2 line 21, and col. 5 lines 20-52 is not related with the "variation file" and "offset" defined in Sull.
- The claim is modified according to [0198]-[0199].

Regarding dependent claim 27

- Brown's teaching in FIG.4, col. 1 line 52- col. 2 line 21, and col. 5 lines 20-52 is not related with the "variation file" and "offset" defined in Sull.
- In this claim, Sull teaches that the referential segment is between two successive shot boundaries in [0199].

Regarding dependent claims 28 and 29

- Brown's teaching that a user may create multiple multimedia bookmarks for a single file in col. 15 lines 30-63 is not related with the claim.
- Jain teaches that time-code metadata may be emailed in col. 13 lines 24-28. But, the time-code metadata of Jain is not a multimedia bookmark of Sull which has the content information as well as the positional information including time code. Furthermore, Jain does not teach that time-code metadata may be copied, just teaches that it could be packed up, compressed, and emailed.
- In these claims, Sull teaches that multimedia bookmark can be copied and e-mailed in [0208] with FIG. 10 and [0251]-[0266] with FIG. 16.

Regarding dependent claim 45

- Referring to dependent claim 15.

3. Claims 9 and 39 according to "Brown" (US 6,868,225 B1) and "Swenson" (US 6,064,380)

Regarding dependent claim 9

- Brown's teaching in col.3 lines 49-50 and col. 3 line 64 – col. 4 line 27 does not teach that the positional information is a URI.
- Swenson teaches in FIG.3, FIG.4, and col. 4 line 65 – col. 5 line 24 that "the position at which the file was stopped will be saved to persistent memory". However, Swenson also teaches in col. 5 lines 44-51 that "the position may be determined in terms of byte position or time position or other criterion, but in any case, the position indicia stored will be sufficient return to the position *within the multimedia file* at which the play was terminated". In Swenson, bookmarked information of a multimedia file only has the position and an optional title without URI of the multimedia file. The multimedia file might be accessed later if URL of a web page including the multimedia file is saved. The saving of web page URL ("Favorites" function of a web browser) is different from

multimedia bookmark of Sull. Furthermore, Swenson does not describe how to access the multimedia file again after termination of the presentation of the multimedia file. It seems that Swenson assumed the "Favorites" function of a web browser for bookmarking multimedia content.

Regarding dependent claim 39

- Referring to dependent claim 9.

4. Claims 69 and 70 according to "Brown" (US 6,868,225 B1) and "Hsu" (US 6,757,273 B1)

Regarding independent claim 69 – Method

- Brown's teaching in abstract, col. 1 line 52- col. 2 line 21, and col. 15 lines 30-63 is not related to the multimedia bookmark having the content information disclosed in Sull (See [0051], [0172]-[0175] with FIG. 2).
- Hsu's teaching in col. 2 lines 1-44, FIG.4, col. 6 line 62 – col.7 line 18, and col. 2 lines 1-44 is not related to sending multimedia content to a mobile device by using a multimedia bookmark having the content information disclosed in Sull (See [0172]-[0175] with FIG. 2 and [0280] with FIG. 21).

Regarding dependent claim 70

- Brown's and Hsu's teaching is not related to sending multimedia content to a mobile device or a personal digital assistant by using a multimedia bookmark having the content information disclosed in Sull (See [0172]-[0175] with FIG. 2 and [0280] with FIG. 21).

Conclusion

The claims should be allowed.
No new matter is entered by this amendment.
No fees for excess claims are necessitated.
A fee for a two month's extension of time in which to respond is included.

For the Applicant,

D A Stauffer 12/8/05

Dwight A. Stauffer date
Registration No. 47,963

1006 Montford Rd.
Cleveland Hts., OH 44121
216-381-6599 (ph/fax)

attachments: One red-lined drawing sheet 3/65, and One clean replacement drawing sheet 3/65

RED-LINED

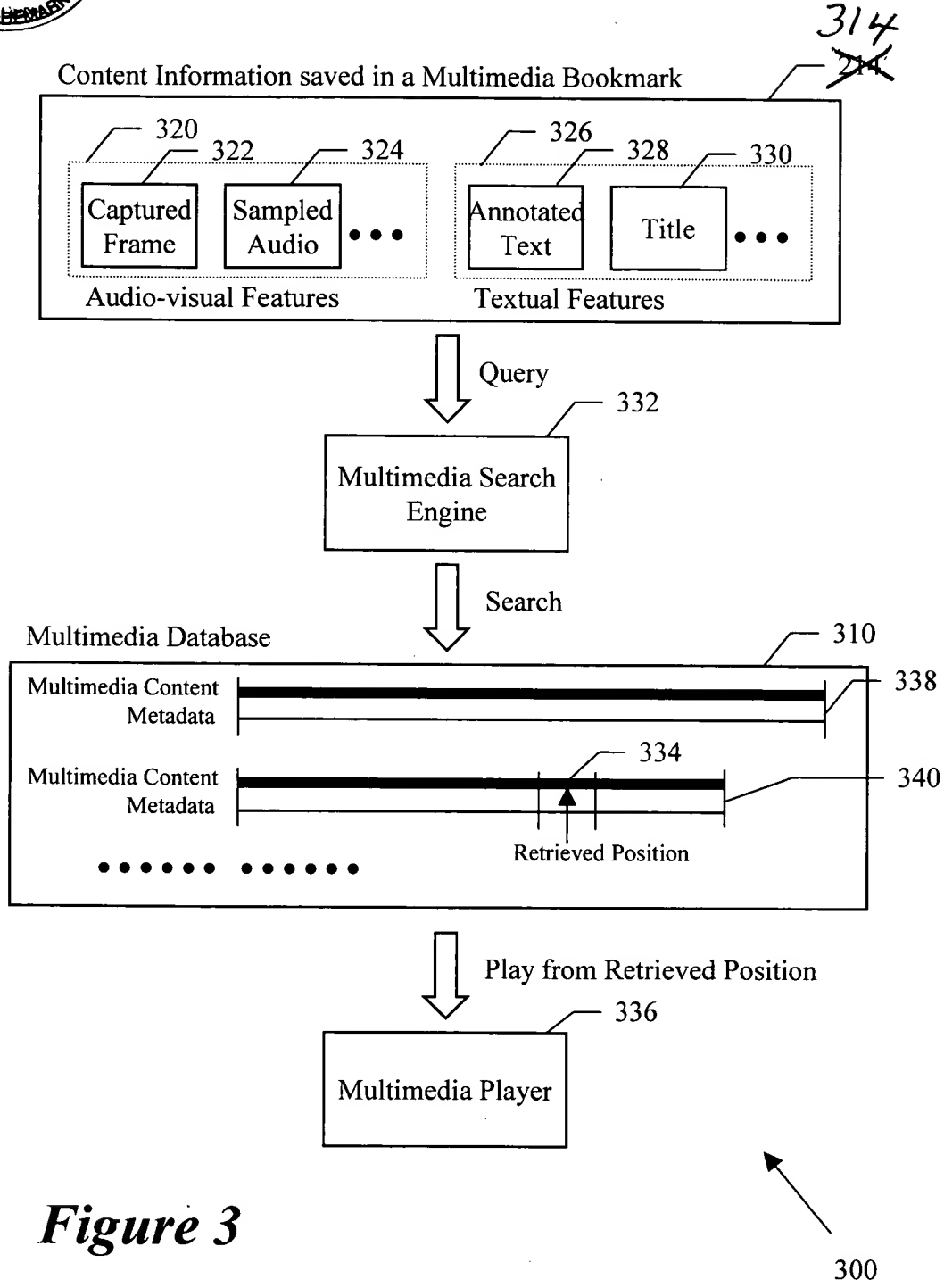

Figure 3